



# THE DIRT

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## BOUNDARY DAM

### SUCCESSFUL TEAMWORK & COMPLETION AT BOUNDARY DAM

IMCO's work at Boundary Dam was completed in October with demobilization of the 200-ton crane. The project was located amid a breathtaking landscape, work took place roughly 100 feet above the river on the dam spillway. The project included the removal of previously installed total dissolved gas (TDG) modifications on spillway 1. Crews worked on an active spillway along a cliff edge. All materials were hoisted in by crane from an access road adjacent to the dam as the only ingress/egress for the spillway was by foot via elevator and stairs.

Crews removed concrete and roughness elements embedded in the spillway concrete, decommissioned post tension anchors, and placed reinforced concrete to match the existing spillway slope and contours. Scope included extensive demolition utilizing hand tools to break out and remove stainless steel roughness elements and concrete down to a uniform depth. This was hard physical work performed adjacent to significant fall hazards which required heightened safety precautions. IMCO's 200-ton crane was used to hoist out the concrete rubble,

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*Work on the Boundary Dam project took place roughly 100 feet above the river on the dam spillway.*

*Boundary Dam article continued from cover*

## COMPANY UPDATE

### CELEBRATING RESILIENCE, LOOKING AHEAD

IMCO personnel have been navigating endless change and working through substantial preconstruction efforts to get new projects ready for construction. This is exciting new territory for many IMCO managers and teams.

The Priest Rapids project kicked-off last month, after nearly a 20-month delay. The team has negotiated a large increase to the contract value, addressing material escalations, increasing self-performance and equipment, and improving the planning for construction. This is an exciting and highly anticipated milestone for IMCO!

IMCO's opportunity pipeline, the work the team is pursuing through business development and estimating efforts, continues to remain strong, increasing more than 30% in the last three quarters. Business development success in the hydro, industrial, and water/wastewater sectors have resulted in this growth. IMCO's team is almost a year into their first PDB project, the City of Lewiston's new water treatment plant and construction was scheduled to begin last week!

IMCO is heading into 2022 with one of the strongest backlogs, work under contract to perform, in the company's history. In spite of slow revenue on many projects and all the hurdles COVID has thrown at us, 2021 has been a strong year for IMCO's teams!

stainless steel elements, and all other materials. The metal elements in the concrete caused an increase to the total dissolved gasses in the river downstream, adversely impacting the fish population. The roughness elements also posed structural concerns, which were mitigated by their removal. Once the concrete was removed from the spillway, new concrete was poured. This was complex concrete work due to the curvature of the existing spillway which had to be matched to a tight tolerance.

The success of this project is accredited to skilled field work, strong teamwork and camaraderie, diligent on site leadership and problem solving. Early on, the team recognized potential issues with the concrete mix design, which was set to be supplied by the client. IMCO's team assisted in testing the mix and worked through issues to determine a solution ahead of time. This proactive approach allowed the infill concrete to be placed ahead of schedule and greatly contributed to the success of the project and client satisfaction. The team on site was vocal and took initiative in discussing methods of improving productivity while mitigating safety risks.

The client noted appreciation for the project team's excellent communication, courteous teamwork, proactive resolutions, and for the team showing pride in their work and in IMCO. Community leaders were also impressed and grateful for the IMCO team's respectful attitude, professionalism, and kindness.

## ORCHARD COMBAT

### RAIL ADDITION

The Orchard Combat team is on an aggressive schedule to beat the winter weather and complete the task of placing 25,000 cubic yards of concrete. Concrete placement is over 70% complete, with the majority of the rail encapsulation scheduled to finish in early November. Civil crews are putting the finishing touches on the last of the earthwork while fencing installation, hydro seeding and electrical work is progressing.

Although the Orchard site is 60 acres, the work is now moving into a small and confined area where safety remains imperative. The crew continues to stay focused, paying close attention to moving equipment and each other. The project is expected to be complete in January 2022.



## PSERN RENTON CITY HALL

King Country is in the process of replacing the King County Emergency Radio Communications System (KCERCS) with a new radio system for the Puget Sound Emergency Radio Network (PSERN) at the Renton City Hall. The IMCO project team will provide demolition within the electrical room and mechanical, electrical, and telecommunications upgrades in preparation for the installation of PSERN equipment by Motorola.

The team is currently installing steel studs and drywall in the 7th floor equipment room to allow mechanical and electrical rough-in activities.

This is a unique project, a commercial tenant improvement project, including telecommunications elements which limited the competition and made way for the joint venture between IMCO and TKK Communications.

Notice to proceed was issued on August 30<sup>th</sup>, and the project will be completed by November 28<sup>th</sup>.

## EAGLE WWTP

Eagle WWTP is nearing completion after 11 months of work constructing four lagoons for the expansion of the City of Eagle's wastewater treatment facility. This last month included finalizing the installation of the complex aeration system. Each aerator consisted of 26 individual parts to assemble, 3,744 parts were needed to build the complete system, not including the extensive piping and cabling support system. Careful planning was necessary to eliminate rework of the assembly. In addition, the crew completed testing and commissioning of the high-speed turbo blowers and relocated existing large horsepower submersible pumps. They are finalizing site furnishings and closing out the project.



## CITY OF LEWISTON WELL NO. 7



IMCO secured a second project for the City of Lewiston at the same site as the water treatment plant progressive design-build project. Crews started work on this \$2 million project on November 1st. The project team will provide the City of Lewiston with a new well house, vertical turbine well pump, motor and column pipe, emergency generator, controls, associated piping, site development, a transmission main from the well house to the reservoir tank, and a stormwater system. The project is slated for completion by April 30, 2022.

## LEWISTON WTP PROGRESSIVE DESIGN-BUILD

The Lewiston water treatment plant project officially broke ground with a ceremony on October 12th to celebrate the milestone with the community. Originally built in 1924, the new facility will be a membrane treatment system capable of treating 10 million gallons of water per day, with the ability to expand to 16.7 million gallons per day to support future growth.

IMCO was awarded the project in 2020, and the preconstruction team has worked closely with the City of Lewiston and design partner Stantec to bring the design to fruition over the past ten months.



Construction is taking place on the tight site of the existing plant. The City has stopped pulling water from their Clearwater River intake. They are now using a well system to provide drinking water to the community until April 2022, when they will begin using a temporary membrane system to support increased water needs due to irrigation season. Over the next several months IMCO's construction team will be onsite performing demolition work and installing new piping and tank systems to support the temporary and final treatment plant system. In January, Pall will be onsite to deliver the temporary membrane units. Once this system is in place, construction of the new membrane treatment system will begin. Construction is expected to take 18 months.

This is an exciting chapter and IMCO's first progressive design-build project. IMCO's crews are getting to work doing what they do best, building a first-class treatment plant for a great client.

## PRIEST RAPIDS

### RIGHT EMBANKMENT

After a 19-month delay, IMCO has begun to mobilize to the Priest Rapids Right Embankment site, and the project is underway. Negotiations on 11 change orders increased the original contract from \$33 million to \$54 million. Due to the impressive efforts from the project management team, a change order totaling \$14.6 million was recently accepted for additional compensation associated with delayed construction and additional IMCO self-performed work.

Significant scopes are scheduled to start this fall, including dam safety instrumentation, construction of the main batch plant foundation, and hauling the new roller compacted concrete (RCC) plant on site.

IMCO will be monitoring for potential dam failures 24 hours a day, 7 days a week while excavating behind the existing embankment. Once IMCO crews excavate to bedrock elevation they will map and document the rock formations present, address any cracks in the foundation, then pressure wash and vacuum the bedrock surface to ensure adequate support and adhesion for the new dam structure. A subcontractor will perform drilling and high pressure grouting through the bedrock to help stabilize the foundation by filling in subsurface voids and seams with grout.

IMCO will also begin constructing a large foundation structure for the newly acquired main concrete plant which produces roller compacted concrete, the primary material for the new dam structure. This unique foundation structure will allow on-road ready-mix trucks as well as 30-ton off-road haul trucks to drive under the plant and be loaded from above to help achieve maximum daily goals of producing and placing up to 1,100 cubic yards of RCC per shift.

IMCO will erect the plant with assistance from the manufacturer and begin calibrating it for use. This highly critical calibration process requires significant coordination and assistance from the batching controls provider, the manufacturer, the quality control subcontractor, and the chemical admixture supplier. Once set up, the plant will operate almost entirely on an automated basis.

The site, surrounding properties, and access routes to the site are heavily controlled and restricted for public use. To help the project team maintain their contractual obligations, all visits need to be scheduled in advance with the project team.

226,000 CY of Excavation



62,000 CY of IMCO produced Roller Compacted Concrete (RCC)

11,000 CY OF IMCO-PRODUCED CONVENTIONAL CONCRETE

7,700 CY OF IMCO-PRODUCED PLASTIC CONCRETE

17,000 TN OF CEMENT & FLY ASH POWDER

126,000 TN OF RCC AGGREGATE IMPORTED

16,000 Sacks of Cement for Grouts



32,000 GALLONS OF CHEMICAL ADMIXTURES

136,000 Labor Hours of Craft & Staff



500,000 LBS OF BENTONITE FOR PLASTIC CONCRETE

PRIEST RAPIDS BY THE NUMBERS